tls. 10/17/05

```
      (c) format only 2005 Dialog
  File  55:Biosis Previews(R) 1993-2005/Oct W2
        (c) 2005 BIOSIS
  File  34:SciSearch(R) Cited Ref Sci 1990-2005/Oct W2
        (c) 2005 Inst for Sci Info
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
        (c) 1998 Inst for Sci Info
  File 340:CLAIMS(R)/US Patent 1950-05/Oct 13
        (c) 2005 IFI/CLAIMS(R)
*File 340: The 2005 reload is online as of October 17, 2005.
See
HELP NEWS 340 for details.

      Set  Items  Description
      ---  -----  -----------
? s polysialic
      S1    2589  POLYSIALIC
? s cancer or tumor or malignan? or neuroblastoma
Processing
         1530186  CANCER
         1601440  TUMOR
          590849  MALIGNAN?
           57412  NEUROBLASTOMA
      S2 2964446  CANCER OR TUMOR OR MALIGNAN? OR NEUROBLASTOMA
? s s1 and s2
Processing
            2589  S1
         2964446  S2
      S3     454  S1 AND S2
? s treat? or inhibit? or decreas?
Processing
Processing
Processing
         5518024  TREAT?
         3257526  INHIBIT?
         2759303  DECREAS?
      S4 9664769  TREAT? OR INHIBIT? OR DECREAS?
? s s3 and s4
             454  S3
         9664769  S4
      S5     155  S3 AND S4
? rd
>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records  (50)
...examined 50 records  (100)
...examined 50 records  (150)
...completed examining records
      S6     104  RD (unique items)
```

```
? s s6 and py<=1999
Processing
Processing
             104  S6
        37633484  PY<=1999
      S7      68  S6 AND PY<=1999
? s lung or neuroblastoma
          842773  LUNG
           57412  NEUROBLASTOMA
      S8  897216  LUNG OR NEUROBLASTOMA
? s s7 and s8
              68  S7
          897216  S8
      S9      36  S7 AND S8
? t s9/3,k,ab/1-36
```

9/3,K,AB/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

13011614 PMID: 10972143

Overexpression of alpha2,3 sialyltransferase in neuroblastoma **cells results in an upset in the glycosylation process.**

Georgopoulou N; Breen K C
Dept. of Pharmacology & Neuroscience, University of Dundee, Ninewells Hospital Medical School, Scotland, UK.

Glycoconjugate journal (UNITED STATES) Oct **1999** , 16 (10) p649-57,
ISSN 0282-0080 Journal Code: 8603310
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Glycosylation is key posttranslational modification for membrane-bound and secreted proteins that can influence both the secondary structure and the function of the protein backbone. In order to investigate the effect of altered cellular glycosylation potential, we have generated a number of clonal cell lines over-expressing the alpha2,3(N) sialyltransferase enzyme (ST3N). In general, there was a **decrease** in total sialyltransferase (ST) enzyme activity in the clones transfected with the ST3N cDNA, with this

decrease being inversely proportional to the quantity of the mRNA coding for the enzyme. The ST3N enzyme was, however, functional and there was an increase in both MAA lectin staining and the expression of **polysialic** acid, which is attached to the NCAM protein backbone primarily via an alpha2,3 linkage. These results suggest that the overexpression of a sialyltransferase may upset the sialylation potential of the cell.

Overexpression of alpha2,3 sialyltransferase in neuroblastoma **cells results in an upset in the glycosylation process.**

Oct **1999** ,

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IN-VITRO AND IN-VIVO GROWTH OF CLONAL SUBLINES OF HUMAN SMALL-CELL
LUNG **-CARCINOMA IS MODULATED BY** POLYSIALIC **ACID OF THE NEURAL**
CELL-ADHESION MOLECULE (Abstract Available)

Author(s): SCHEIDEGGER EP; LACKIE PM; PAPAY J; ROTH J
Corporate Source: UNIV ZURICH,DEPT PATHOL,DIV CELL & MOLEC PATHOL,SCHMELZBERGSTR 12/CH-8091 ZURICH//SWITZERLAND/; UNIV ZURICH,DEPT PATHOL,DIV CELL & MOLEC PATHOL/CH-8091 ZURICH//SWITZERLAND/
Journal: LABORATORY INVESTIGATION, **1994** , V70, N1 (JAN), P95-106
ISSN: 0023-6837
Language: ENGLISH Document Type: ARTICLE
Abstract: BACKGROUND: **Polysialic** acid (poly Sia) of the neural cell adhesion molecule (N-CAM) is an oncodevelopmental antigen and is found in small cell **lung** carcinomas (SCLC) as well as cell lines derived from these tumors. EXPERIMENTAL DESIGN: Cell heterogeneity in poly Sis expression was observed in primary SCLC and cell cultures of SCLC by immunostaining using a directly gold-labeled monoclonal antibody against poly Sis (MAb 735) and antibodies against N-CAM. Clonal sublines of the N-CAM-positive SCLC cell line, NCI-H69 were established to study the basis of this heterogeneity. The resulting sublines were examined for the proportion of cells expressing poly Sis, the stability of poly Sia expression, and the possible involvement of DNA methylation. Two of the sublines that expressed poly Sia on 0 and 95% of the cells were used in three independent in vitro assays to investigate the importance of poly Sia in cell-cell aggregation, disaggregation and cell to substrate adherence. Finally, clonogenic growth of these sublines was studied in soft agar and in the nude mouse. RESULTS: The proportion of cells immunoreactive for poly Sia was stable in serial subculture in these clones and was not affected by reducing DNA methylation. In aggregation and disaggregation assays,

poly Sia was shown to modulate both calcium-dependent and independent cell-cell adhesion. No measurable differences in the attachment rates to various substrates (collagen type IV, laminin, heparan sulfate, and poly-L-Iysine) were detected between the sublines. Cells from the poly Sia-positive clonal subline formed significantly more colonies in semisolid media and more intracutaneous metastasis in the nude mouse.

CONCLUSIONS: Poly Sia does not occur on all N-CAM immunoreactive cells of SCLC. Poly Sia on SCLC cells is a clonable trait and high poly Sia expression correlates with reduced cell-cell adherence, a greater clonogenic ability in semisolid media, and a significantly higher incidence of intracutaneous metastases in nude mice.

Title: IN-VITRO AND IN-VIVO GROWTH OF CLONAL SUBLINES OF HUMAN SMALL-CELL LUNG **-CARCINOMA IS MODULATED BY** POLYSIALIC **ACID OF THE NEURAL CELL-ADHESION MOLECULE**

, 1994

Abstract: BACKGROUND: **Polysialic** acid (poly Sia) of the neural cell adhesion molecule (N-CAM) is an oncodevelopmental antigen and is found in small cell **lung** carcinomas (SCLC) as well as cell l